Hybrid Green Roof-Planter Box System Design and Construction for PNU GI/LID Facility

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Abstract

Nowadays, stormwaters have been affected by urbanization and climate change. These transition can cause many problems for hydrologic cycle by increasing runoff volume like flood and low water quality. As with other metropolises and peninsulas, Busan has involved with these problems too. Therefore, it is really vital to do some arrangements to solve them by low impact development (LID) technology. In fact, LID has been introduced to reduce runoff by applying some techniques such as green infrastructure (GI). In order to deal with the aforementioned issues in Busan, this study attempts to design and construct a hybrid green roof-planter box system at Pusan National University GI/LID Facility based on local weather. For this purpose, we used experiment and modeling method on some planter boxes and optimized them by trial and error method.

Keywords : Low Impact Development, Green Infrastructure, Green Roof, Planter Box, Runoff

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